AUSTRALIAN SOCIETY of DENTISTRY for CHILDREN

MEMBER ASSOCIATION OF IADC

N E W S L E T T E R

OCTOBER

CONTENTS

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THE PRESIDENT'S COLUMN

For my column in this quarterly issue, because of the absence of any original cerebral activity, I have decided to plagiarise the writings of other authors .... on the topic of what, historically has been known as "oral habits".

The list of authors I shall quote will be brief, current and hopefully relevant. I shall confine myself in fact, to two authors, very well respected and who have publicly written on the need for early recognition and family counselling on oral habits, which can be comprehensively described as dysfunctions of the oral and facial structures caused by abnormal swallowing, breathing and muscular habits.

I am prompted to choose this topic, because I am seeing an increase in numbers of adolescent patients with minor occlusal and aesthetic problems of their permanent dentitions where early diagnosis, parent counselling and/or, simple treatment should have been offered. As Paediatric or general dentists seeing pre-school and primary school age children, we have an obligation to advise the families, Paediatricians and child health care workers to seek dental consultation as soon as the primary teeth begin to erupt. A training in, and knowledge of growth and development, enables the paediatric and general dentist to best recognise abornormalities of the oral and facial structures.

Dr. Stephen Moss of New York, has stated that one of the main reasons why children suffer malocclusion is that they do not learn to swallow or breathe properly or they have some muscular habit.

"Paediatric dentists understand that if a child is nursing from a bottle, he/she should be in an upright position because if a child nurses while lying prone, then he/she learns to swallow with the tongue in the wrong position. then the lips exert more muscular strength than the tongue and the teeth are either pushed out or pushed in. And these are things that you can counsel young parents on. At this time we can talk with the parent, we can look at the type of nipple being used on the bottle because it is the tongue, the lips and even the digits of the hand that dictate what position the teeth would occupy in any given mouth."

Dr. Ralph McDonald, in "The Journal of the American Academy of Paediatric Dentistry" June 1987, makes some important statements which I consider relevant to all of us interested in paediatric dentistry in Australia. "An important aspect of an infant's oral health care programme is to discover, intercept and modify parenting practices that may be potentially hazardous to infants oral health. The prolonged use of the nursing bottle is an important aspect of a programme. The expectant mother is quite correct to enquire about the medication she is taking. It is a known fact that the prolonged ingestion of tetracyclines may result in discoloured and pigmented and even hypoplastic primary teeth. The presence of active dental caries and high levels of S. mutans can lead to transmission by the mother to the new born child and may be responsible for caries at a very early age."

I seek the indulgence of the reader in my assumption that poor oral habits of the expectant mother can be interpreted as causing "oral habits" such as hypoplasia and dental caries in the infant, I concede, it is a broad definition.

However, our realisation that public awareness of oral habits is often in need of regular publicity is a constant challenge which we in the A.S.D.C. should constantly address.

BRUCE A. TIDSWELL

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SECRETARY'S REPORT

The next Biennial Convention of our Society (the VIIth) will be held in October next year in Brisbane to allow participants the opportunity to see "Expo 88". Although this is the same year as the A.D.A. Bicentennial Congress in Sydney, it is a different financial year, and the attraction of a visit to Expo 88 seems too good to miss.

Meanwhile arrangements for our participation in the programme of the 25th Australian Dental Congress are well in hand, in spite of our non-apperance in the "Affiliated Meetings" segment of the advertising brochure recently published by the A.D.A.

A special General Meeting will also be held specifically designed for members to debate and vote on the Council approved changes to our Constitution. The changes are designed to allow us to amalgamate with the New Zealand Society of Dentistry for Children, and each member will receive a copy of these proposed changes 21 days prior to the meeting (Article VIII).

DR. J.C. KEYS

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PAEDIATRIC DENTISTRY IN THE U.S.A.

by

DR. JOHN W. BROWNBILL, CONSULTANT
Department of Paediatric Dentistry, University of Minnesota

Dentistry is alive and well in the U.S.A. but is undergoing a mid-life crisis, Paediatric Dentistry is undergoing changes of its own as a part of dentistry in general. In the late 1970's the American Dental Association Special Committee on the Future of Dentistry (ADASCFD) identified three factors which needed prompt attention: a surplus of dentists, a decrease in demand for dental services and a perception that there would be no decay to treat in the future.

Associated with, as a cause of, or as a result of these factors, there has been a decline in dental disease, its rate of progress and a deferral of treatment. There has been a decline in real income of dentists, an increased cost of dental education and of establishing a practice, but the availability of finance has never been greater. Nowhere has the change been more evident than in Paediatric Dentistry where the effects of fluoridation have been immediate and permanent. These factors have led to a decline in the quantity and quality of students applying for positions as undergraduates and postgraduates particularly in Paediatric Dentistry.

One advantage of the decreased interest of American students in Paediatric Dentistry is the availability of postgraduate positions to foreign students; three of the four places at the University of Minnesota in 1986 were filled by foreign students. Minnesota Dental School serves four states and has had a traditional intake of 150 undergraduates each year. By 1986 the intake was down to 88 and following a 1984 decision by the Association of Dental Schools to have a flat annual decrease of 17% for four years, Minnesota's annual intake must be projected to be stabilized at 50 from 1988. In 1986 the University of Minnesota accepted a policy of "Commitment to Focus" whereby the University determined to concentrate its efforts in areas of excellence and expertise. As its commitment to focus, the Dental School decided to rise from one of the best ten schools in North America to one of the best five. Early in 1987, it was leaked from the Commitment to Focus Committee that they proposed to close the Dental School entirely! Due to public outcry and concerted activity by the Dental School, the Regents have announced lately that the Dental School is not to close. Of the fifty eight dental schools in North America in 1985, it was projected that ten would close over the next five years; already three have closed. Rumoured closures may become self-fulfilling prophecies as students fail to apply and faculty seeks greener pastures. The ADASCFD in 1981 identified a need for dentists to be more market-oriented, to broaden the skills of general practitioners, to educate fewer specialists and to find qualified young people to enroll in dental schools.

Marketing is a big interest especially in Paediatric Dentistry. At the University of Minnesota we have the No Cavity Clinic, a concept offering full preventive services to all our patients. Parents are involved to the maximum degree. Dietary analyses, oral hygiene instructions in a room for that purpose, topical fluoride applications, and sealants to all susceptible grooves as posterior permanent teeth erupt are performed and mouthguards are constructed. Even in the metropolitan area, many children use well water which can be analysed for fluoride content and appropriate supplementation prescribed. To fill unmet patient needs and to provide student instruction the department has a contract with a church school for complete care, and with a school for the handicapped, and is pursuing other avenues of recognized unmet need. Many Paediatric Dentists have arrangements with schools, hospitals, creches and other institutions to provide complete care services. Poor people are encouraged to attend the dental school where a counsellor will help them find an agency to meet their costs. A 15% increase in demand has resulted from the marketing campaign of the American Dental Association to meet the needs of the poor, the elderly and the rural population. Their slogan is sensing, serving, satisfying. Dental insurance is by far the greatest marketing influence.

The funds dominate dental finances being involved in over 50% of patient encounters in U.S.A. The problems are much the same as in Australia with some funds dictating the fees to be charged by their preferred providers. One advantage is that most forms are standardised and computerised. A big problem to the Paediatric Dentists is the push by the funds not to have Paediatric Dentists as primary providers, requiring a referral from another dentist. At present only 10% of patients are referred by a dentist. The funds influence treatment by not refunding certain items such as sealants for deciduous teeth and glass ionomer cement fillings. The availability of insurance funding has drawn many traditional patients away from the dental schools and hospital clinics to both the general and Paediatric Dentists. Another major influence on treatment is litigation.

Litigation has raised standards and awareness in dentistry, but has also limited developments. Dentists stay rigidly within treatment guidelines; for example Paeditric Dentists will not see a patient unless they take bitewing and panoramic radiographs first, so the indigent patient may suffer greatly until some agency picks up the case and establishes treatment. Glass ionomer sealants and fillings are rarely used. The combination of insurance restrictions and litigation limits the early application of research findings as shown by the incredibly slow progress in the utilization of sealants except by Paediatric Dentists.

Specialists, Paediatric Dentists in particular, and general dentists are changing their hours of work. Most work at least some Saturday mornings or all day Saturday and many have extended evening hours. The broadening of skills in Paediatric Dentistry is evident in the amount of Orthodontics being taught and treatment given. Unlike other specialties there has been no concerted move by Orthodontists to train dentists in advanced treatment and diagnosis yet many

dentists are attending non-academic courses in Orthodontics and competently moving into this field as they should. Whilst the specialties of Oral Surgery, Periodontics, Paediatric Dentistry, Endodontics, Oral Pathology, Diagnosis and Prosthodontics welcome the General Practice Residency postgraduate students into their departments at the Minnesota Dental School, the Department of Orthodontics does not, nor does it have any undergraduate clinical training. Despite the Orthodontists, Paediatric Dentists will increase their knowledge and skills in Orthodontics. Orthodontists will take their rightful position of treating difficult cases.

Americans have changed from eating regular meals to being grazers on convenience foods providing unbalanced nutrition which can take its toll on teeth. There are still some patients for whom caries is a significant problem. Patients see it as their right to be treated by the same dentists for all their regular needs - "the super-generalist" - leaving the specialties to fewer, highly trained dentists. A perceived problem is to find the calibre of student to fit into the super-generalist mould. The income gap between dentists and specialists is closing as the dentists's income is on the rise again at last. In some states hygienists have established independent practice, which has an implication for Paediatric Dentists as hygienists are entitled to place sealants, perform prophylaxes and apply fluoride.

Among techniques in vogue are acid abrasion, preventive resin restorations, and the use of conscious sedation for the very young. General anaesthesia is very expensive and is not well funded by insurance. "Baby bottle caries" cases are sedated, placed under nitrous oxide/oxygen suplement and multiple stainless steel crowns with anterior composite facings are placed utilizing pulpotomies if necessary. Fluoride and hypoplastic spots are acid abraded and/or faced with composite resin, and preventive resin restorations are being used instead of amalgams for initial lesions.

The lessons for us in Australia are clear. In the market oriented society dentists must provide the services which the market seeks, or the market will seek those services elsewhere. Dental schools must provide satisfactory services to their patients, research relevantly and produce market oriented graduates or their funders will close them down. Dentists must be prepared to change as new techniques and approaches evolve.

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1. Stanik M. The Challenge of Change in the Dentist's Chair. Health Sciences - University of Minnesota: 11-15, Summer 1986

2. Till M.J. Personal Communication December 1986

THE SOCIETY - LOOKING FOR THE NEXT WAVE

This is the first of an irregular series on the future and role of Paediatric Dentistry in Australasia. The first interview is with Dr. Joe Verco, Specialist Paedodontist in South Australia.

Editor:

How do you think the Society has progressed?

Dr. Verco:

The Society saw its First Clinical Meeting in Melbourne in 1974, and although the Society is about 10 years old we have seen the initial decade of enthusiasm and a subsequent decline. The last Biennial Meeting was like a lepers meeting where approximately 40 attended and left the Treasurer bearing the scars of camel bricks.

However, the possibility of amalgamation with the New Zealand Soceity to become the "Australasian Society of Paediatric Dentistry" is certainly a positive concept if acceptable to members. The professional cross-pollination of ideas at a clinical and academic level is to be encouraged.

I am still amazed that there are only some 7 Paedodontists in private practice in Australia. There are some 5-6 Postgraduate students in the pipeline at present which is encouraging. Hopefully, these students will provide new enthusiasm and vigour to the speciality.

Editor:

Do you consider that the Society can increase its profile both within and without the profession?

Dr. Verco:

The profile of the Society in some States needs to be lifted. Membership is stagnant or on the decline. Meetings are selectively attended. The image of the Children's Dentist as behavioural professional needs to be extended to a Paediatric dental physician/dental surgeon concept.

In South Australia continuing education has been encouraged by the formation of a "One Off Study Group" of first year graduates, being given lectures on a voluntary basis once a month by a specialist. This could be encouraged for future years as well. It does not cross the bows of the Postgraduate Committee in Dentistry and its courses.

Public Relations has always been a costly sore point with not only the Federal body (A.D.A.), but also, I am sure, the State Branches. The Society has done some good, by bringing the attention of Nursing Bottle Caries to the notice of the public in Brisbane and Adelaide at least. As a professional group our credibility rating (Bulletin) remains high and we should capitalise on this. A new A.B.C. programme P.G.R., I feel, is an ideal avenue and others need to be explored as well.

Editor:

Some consider the School Dental Service makes treatment decisions on cost-effectiveness. Do you think this true, and if so is it a limited view of paediatric dental care?

Dr. Verco:

Politically there still remains a chasm between private practitioners and those of our School Dental Service. Professionally, this fortunately is not the case. Unfortunately the financial cost of belonging to our affiliated society is often not encouraging and maybe some middle ground could be found so professional dialogue could be more complete.

As to cost-effectiveness, in South Australia political decisions have been made to increase funds to the Pensioner Denture Scheme (by 700% since 1981) to the detriment of the School Service where the extension into secondary schools with a participation rate of 60.4% has prolonged the interval between dental visits to 12 months for children in primary and secondary schools. Our President, Dr. Tidswell, has advised S.A.D.S. of the preschool caries problem but this has fallen on deaf ears. One wonders when a base quality of care becomes suboptimal and receives consumer resistance.

Editor:

Is the role of the private practice paediatric dentist changing?

Dr. Verco:

Private Practice is constantly changing. When dental referrals fall off they seem to come in with referrals from medical practitioners. Sometimes children get the run around - I was recently the fifth in line after a child had been passed around in a practice! However, for those prepared to venture into private practice, a caring personality to treat parents is often more beneficial.

Editor:

What other considerations do you think the Society should make?

Dr. Verco:

The Council can only operate with the help and push from its members if it is to progress. The Newsletter should contain a list of Federal and State Office bearers in each issue if possible, and hospitality offered to colleagues travelling interstate. After all we should not be professional cave-dwellers with 20-40 patients a day and only meet professionally once every two years.

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OBITUARY

Dr. Lorna Mitchell

Lorna Mitchell died 29 August, 1987 after a short illness. Lorna initially followed a predictable career after graduating, marrying and working around the State as her husband's work moved them from one town to another. Lorna left dentistry to have a family, and when they settled in Castle Hill, she returned to dentistry. It was here that Lorna changed direction and turned herself to what she knew she did best and enjoyed - treating children. Lorna started at home a practice exclusively for children. The word spread far, and before long Lorna moved to professional rooms in Castle Hill. There would not be another surgery like it in Australia. To enter her office, was to enter a world of childhood fantasies. The practice continued to grow and Lorna was soon sharing the demand with three associates - all female. Even as Lorna faced death, she continued the expansion and renovation of her surgeries, visiting at times in a wheelchair. Her devotion to dentistry for children continued to the last, and all of us who knew her suffered a personal and professional loss at her untimely passing. To her family we extend our deepest sympathies.

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NEWS FROM BRANCHES

VICTORIAN BRANCH

The Victorian Branch held its third Dinner Meeting for the year on Thursday, 16th July. Over 30 members and guests were treated to a fascinating lecture by Sr. Kaye McNaught, Clinical Nurse Specialist, Haematology and Oncology Department, Royal Children's Hospital, Melbourne. Kaye presented an amazing array of factual information, tracing the history of A.I.D.S. to the present day. She then described her own role in the clinical team dealing with children and adolescents who have A.I.D.S. or A.I.D.S. antibodies, mostly as a result of blood transfusions. Her sympathetic and rational approach to such an enormously emotional situation was a lesson to all who attended, and highlighted the need for all those in clinical practice to become aware of the facts surrounding A.I.D.S., and not become victims of media hysteria.

Our 10th Annual Convention Day was held on Friday 28th August at Queen's College, University of Melbourne. Despite a last minute change of venue, the day seemed a success with the weather holding out to enable legs to be stretched at the appointed meal and drinks breaks. The main lecturer was Dr. Monique Julien from the University of Montreal, who gave two lectures on nutrition for the growing child, and practical methods to measure and improve nutritional habits. Other lectures included Dr. Clive Wright, Chairman of the recent Ministerial Review of Dental Services in Victoria, who outlined some challenges facing public and private dental services for the next decade; Dr. Barry Gilbert, a Consultant Physician in Occupational Medicine, who startled all in attendance with his statistics about occupational hazards in dentistry, and R.S.I. in particular; Dr. Diana Elton, Clinical Psychologist, who managed in an hour to condense the world of stress management into an entertaining and beneficial workshop; and finally, Dr. Gerard Condon, who updated the world of dental materials for us with a vast array of devices and materials discussed. The Happy Hour at the end of the day provided a welcome opportunity to socialize with the guest lecturers before facing the rigors of Melbourne's traffic on a Friday evening.

The final events for 1987 are our last Dinner Meeting on 15th October (to be addressed by Dr. John Brownbill, recently returned from the U.S.A.), and the Annual General Meeting to be held in the home of Vera and Roger Hall on 27th November, at which the 1988 Office Bearers shall be elected.

Felicity James

QUEENSLAND BRANCH:

Synopsis of Meetings

Monday 5th October: Speaker - Dr. D. Dunlop, Orthodontist
Subject - "G.P. Orthodontics - What Skippy Never Told You"

Monday 16th November: Annual General Meeting - United Services Club
Speaker - The Hon. Don Lane - Minister for Transport.

At the last Queensland Branch meeting the Guest Speaker was Dr. Ralph Reid, Endodontist in private practice who spoke on resorption.

The types of resorption include surface, replacement, inflammatory and internal.

1. Surface resorption usually occurs after a concussion injury involving cementum and possibly dentine. It is a self limiting reaction and is clinically insignificant.

2. In Replacement resorption the hard tissue of the tooth is progressively replaced with bone. No treatment is recommended.

3. Inflammatory resorption occurs after significant trauma plus damage to the pulp. It differs both radiographically and histologically to the above two. Ditchings of the tooth surface and the bone on either side of the periodontal space occurs. It is caused by toxins from the degenerating pulp percolating along the dentinal tubules and affecting the ligament tissues. Histologically, significant inflammation is present.

   Recommended treatment is the debridement of the pulpal tissues, use of an intervisit dressing of Ledermix paste, followed by a temporary root filling with calcium hydroxide.

4. Internal resorption can be replacement resorption or inflammatory resorption. Internal replacement resorption shows an irregular enlargement of the pulp chamber where normal pulp tissue has changed into cancellous bone. This resorption is very uncommon. Internal inflammatory resorption is characterized by a regular oval shaped increase in the size of the pulp chamber. The resorption is usually due to the presence of necrotic pulp tissue. Its progression is dependent upon the interaction of necrotic and vital pulp tissue at

the interface. Tooth canal treatment should be instituted immediately. Dr. Reid also advised that the Society may be interested in viewing a video tape compiled by Dr. Hithersay (Adelaide) on the use of trichloracetic acid in the treatment of late cerivcal resorption - a subdivision of inflammatory resorption which can occur many years after the intial trauma.

Incidents of Practice:- Dr. John Keys reported on the Toronto meeting. Topics discussed at this meeting were Oseos Integration and Functional Appliance Therapy.

The Annual Clinic Weekend was held at the Mikado Motor Inn at Rainbow Beach on the weekend 5th/6th September 1987. Twenty dentists registered for the weekend to listen to presentations from Dr. John McNamara, Endodontist in private practice in Brisbane, and Dr. Arch Defteros, Principal of the Yeronga School Dental Therapist Training Centre.

Dr. McNamara's topic was titled "Teeth and Trauma". He covered all aspects from classification of injuries to diagnosis, emergency treatment to more complicated follow-up treatment. John presented a very interesting collection of cases supported by many slides.

Dr. Defteros' topic was titled "Surgical and Orthodontic Treatment of Unerupted Maxillory Anteriors". Arch presented many cases showing a general practitioner's approach to the treatment of the presence of supernumaries or cysts that prevent the eruption of manillory central. Surgical procedures were demonstrated in detail and follow up orthodontic treatments using upper removeable appliances incorporating brackets and elastics were explained.

Our host supplemented our clinical programme with first class service presented in a relaxed holiday atmostphere.

Tom Condon

WESTERN AUSTRALIA

The Branch held its second Annual meeting at Princess Margaret Hospital for Children on 23rd September. This year, the meeting was held in conjunction with the Dental Department of that hospital. In January of this year, the P.M.H. Dental Department was relocated in a new building. Department Chairman, Dr. Bill Brogan, took the opportunity of holding an "Open House" to allow an inspection of the Dental Department by special invited guests and those attending the meeting.

A meal was enjoyed in the W.B. MacDonald Function Room before the 108 in attendance moved through to the W.B. MacDonald Lecture Theatre. This was for the Panel Presentation "Current Controversies in the Endodontic Treatment of Primary Teeth" which was chaired by Assoc. Professor Des Kailis. Presenters were Drs. Peter Gregory, John Hands, John Winters, Peter Neesham and Alistair Devlin. The looked at the various options for treatment i.e. indirect and direct pulp capping, vital and non-vital (chemical and cautery) pulpotomy, pulpectomy and, of course, extraction and at the various materials available for use i.e. Calcium Hydroxide, Zinc Oxide and Eugenol, Silver Fluoride, Formocoesol, Glutaraldehyde, Paraformaldehyde, Ledermix, Iodoform etc.

The definite conclusion of the discussion was that operators need to be aware of the vast range of treatment options available and be prepared to apply the basic principles which would appear to be appropriate for that particular case. Operators also need to balance the proven predictability of a procedure with an understanding of the chemistry and likely toxic effects of the agent being used. The fact that treatments could be of a "fashionable" or "Cyclic" nature became apparent.

Once again, the format proved to be successful, with the obvious plan being to conduct a further "Current Controversies" in 1988. The Branch has one remaining meeting for the year - its Annual Dinner at the Esplanade Hotel in Fremantle. The Guest Speaker on that occasion will be the well known Fremantle dentist and identity, Dr. Bill Dermer.

Alistair Devlin

NEW SOUTH WALES BRANCH:

At the July meeting our Guest Speaker was Dr. John Brownbill. He is a General Practitioner in group practice in Melbourne with a special interest in Preventive Dentistry. Dr. Brownbill spoke on the practise of dentistry for children in the U.S.A. by general practitioners and specialist Paedodontists. he was very well received as shown by the record number of thirty three members and guests who attended.

At the September meeting fifteen members and guests wer present. A tribute was paid to Dr. Lorna Mitchell who sadly passed away on 28th August. She will always be remembered not only as a pioneer in the field of Children's Dentistry but also as a loving and very caring person.

A name change was proposed for the A.S.D.C. to the:- "Australian Society of Paediatric Dentistry". This will be subject to further discussion.

Our Guest Speaker at the September meeting was our State President, Dr. Alain Middleton who gave a very interesting presentation on "Forensic Dentistry". he showed us various methods of identification including dental records, x-rays and video superimpostion. Dr. Middleton emphasized through his talk the importance of accurate dental records and to include past dental work on new dental charts.

Our next dinner meeting will be our Annual General Meeting. It will be held on Tuesday 17th November 1987 and our Guest Speaker will be Dr. Harry Lamplough, former Director of Dental Services, Department of Health, Western Australia. His topic will be "Silver Fluoride under Glass Ionomer Cement - Hinderance or Help?". In recent years school dental services in Western Australia have been evaluating a number of atraumatic techniques for the treatment of the primary dentition. Dr. Lamplough will be presenting findings regarding favourable pulpal effects of the use of Silver Fluoride under Glass Ionomer Cement.

Judy Fenton

SOUTH AUSTRALIA:

Our third dinner meeting for 1987 was held at the University Staff Club on 23rd June. The Guest Speaker was Professor A.J. Spencer, who has been appointed to the Chair in Social and Preventive Dentistry at the University of Adelaide. His topic was "The Changing Demand for Dental Services: Is it Gloom and Doom?". Factors that influenced the demand for dental services included demographic, changing attitudes to disease, new knowledge and technology, increase in education and income levels, and third party financing; and examples of each factor were discussed. Professor Spencer gave a new perspective on the subject and concluded his talk with a frank exchange of ideas in a question and answer segment with our South Australian members. Our next meeting will be 25th August.

Meredith Fantham

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FROM THE JOURNALS

- WITH JOHN BURROW

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RELATIONSHIP BETWEEN MALOCCLUSION AND MAINTENANCE OF TEETH

The goal of orthodontic treatment is generally expressed as the establishment of a dentition fulfilling functional and aesthetic standards pleasing to the individual patient.

In this study, the relationship between the presence of malocclusion and maintenance of the teeth in adulthood was studied in a randomly drawn sample of 499 people in the 39 - 44 year age group. Maintenance of teeth in the past was expressed through the number of teeth present, attachment level and information of regularity of dental visits.

It appeared that satisfaction was significantly related to maintenance of teeth and to a positive dental behaviour. A perceived malocclusion was shown to have a negative influence on satisfaction and thus indirectly on maintenance.

IF OUR AIM IS TO PROVIDE LIFETIME MAINTENANCE OF TEETH, THEN MALOCCLUSIONS LEADING TO DISSATISFACTION WITH TEETH AND A SUBJECTIVELY PERCEIVED NEED, SHOULD BE TAKEN INTO CONSIDERATION WHEN CONSIDERING TREATMENT FOR CHILDREN.

(Horup N, Melsen B, Terp S: Community Dent Oral Epidemiol 1987;15:74-78)

PENETRATION OF ACID SOLUTION AND GEL IN OCCLUSAL FISSURES:

The caries-preventive benefits and retention of pit and fissure sealants have been cited frequently in the literature. The preventive benefits of sealants are only gained and maintained as long as they remain completely intact and bonded in place. For the adequate retention of the sealant, it is necessary to maximize the surface area for bonding and to ensure that the enamel be clean, free of salivary contamination, and dry at the time of sealant placement.

This study evaluated the penetration into the occlusal fissures, of an acid solution and two gels with different viscosities.

A SEM examination showed no morphologically distinguishable differences in enamel at the occlusal site whether treated by acid solution, low-viscosity acid gel, or high-viscosity acid gel in regard to the extent of involvement using either a conventional or scraping method of application. This study confirms other reports that have documented the incomplete penetration of acid into the deeper recesses of fissures. Residual integument in the pits and fissures was not removed by the acid in a conventional or scrape method. The effect of both acid solution and gels was confined to the enamel of the inclined cuspal planes, even in those cases in which the fissures were free of deposits. Despite the failure of acid to penetrate to the deep portions of fissures, the use of fissure sealant is not negated.

(Garcia-Godoy-Gwinnett. JADA 114, June 1987)

COMPARISON OF FIBRE OPTIC TRANSILLUMINATION WITH CLINICAL AND RADIOGRAPHIC CARIES DIAGNOSIS:

In recent years, concern about the cumulative effects of ionising radiation has led to the suggestion that all sources, including dental radiography, should be reduced. Fibre optic transillumination (FOTI) has been investigated as a means of augmenting clinical caries examinations and of reducing the need for bite-wing radiographs.

The data from this study suggests that where bite-wing radiography is unavailable for diagnosis of posterior approximal caries, FOTI can almost double the detection that is achieved by conventional clinical observation. However, when bite-wing radiography is used for interproximal caries detection it is 5.8 times as sensitive as the FOTI method. When clinical and radiographic techniques were compared, the latter was 8 or 9 times the more sensitive for posterior approximal diagnosis.

This study showed that the assumption that FOTI diagnosis may be a substitute for bite-wing radiography appears premature. Nonetheless, FOTI is of benefit for diagnosis of anterior caries.

(Stephen KW, Russell JI, et al Community Dent Oral Epidemol 1087;15:90-4)

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T * H * O * U * G * H * T * S

To err is human, but to really foul things up requires a computer.

The attention span of a computer is only as long as its electrical cord.

The production of this Newsletter
has been assisted by
Colgate Palmolive Pty. Ltd.